Amendments To the Claims:

1-20. (canceled)

21. (currently amended) In an automation network comprising <u>a plurality of nodes, each node</u> <u>comprising one or more connections to connect each node to one or more</u> <s>a plurality of</s> devices <u>and one or more other nodes</u>, a method for <u>reconstruction of the network on a decentralized basis</u> <u>when</u> replacing a <s>first drive</s> device <s>connected to a first node involving identifying an order of</s> <s>devices in the network, wherein the network contains a number of nodes, and wherein each of</s> <s>the nodes has a number of connections for interconnecting the nodes and the devices, the method</s> comprising:

    <u>(a) identifying, by each device in the network in a distributed manner, an order of devices</u> <u>in the network to establish a relationship based on predefined hierarchies of connections for each</u> <u>node, comprising, correspondingly for each device in the network:</u>

        <u>(i) identifying a corresponding device's associated node;</u>

        <u>(ii) determining the order of devices by ascertaining, for the corresponding</u> <u>device's associated node, a number of connections and a predefined hierarchy for the</u> <u>connections, which of the number of connections is connected to the corresponding device and a</u> <u>hierarchy for that connection, and which of the number of connections are still occupied and</u> <u>connected to other nodes and other devices and the hierarchies for those connections; and</u>

        <u>(iii) storing the order of devices in the corresponding device;</u>

    <u>such that after identifying the order of devices correspondingly for each device in the</u> <u>network in accordance with (i) – (iii), each device in the network has distributively stored therein</u> <u>the order of devices, enabling each device to ascertain direct and indirect relationships between</u> <u>the devices;</u>

    <s>providing a second device with data memory or storage in which a relationship or order</s> <s>of the drive device with respect to at least the second device is stored;</s>

    <u>(b) upon</u> replacing <s>the</s><u>a</u> first <s>drive</s> device with a replacement <s>drive</s> device by connecting the replacement <s>drive</s> device to <s>the</s><u>a</u> first node <u>in place of the first device,</u> <s>; operating the</s> <s>replacement drive device to identify the first node to which</s> <u>identifying, by</u> the replacement <s>drive</s>

device, its associated node and which of the other devices is a neighbor of the replacement

device ~~is assigned and to identify other devices including the second device~~; and

      (c) ~~operating the replacement drive device to~~ receiv~~e~~ing, by the replacement device,

locally ~~information~~ from the neighbor of the replacement device, the stored order of devices,

thereby allowing reconstruction of the network on a decentralized basis using the stored order of

devices received from the neighbor

~~second device wherein, with information received from the second device, the replacement drive~~

~~device determines (i) the number of connections of the first node and (ii) a predefined hierarchy~~

~~of the connections and (iii) the connection with which the replacement drive device is connected~~

~~to the first node and, and (iv) for the first node, other connections which are connected to other~~

~~nodes or others of the plurality of devices; and~~

~~establishing a relationship between the devices in the network, on the basis of the~~

~~connection hierarchy predefined for the first node, and other connections to the devices or other~~

~~ones of the nodes as determined by the replacement drive device.~~

22. (cancelled).

23. (currently amended) The method according to claim 21, wherein the <u>stored order of devices</u>

~~step of establishing a relationship includes determination of a first of said other devices~~<u>enables</u>

<u>each device to determine which of the other devices is</u> ~~as~~ an upstream neighbor and ~~a second of~~

~~said other devices is established as~~ <u>which of the other devices is</u> a downstream neighbor ~~for the~~

~~replacement drive device.~~

24. (previously presented) The method according to claim 21, wherein each step of the method is

repeated periodically.

25. (previously presented) The method according to claim 21, wherein the recited steps are

repeated whenever any one of said other devices is no longer connected to the network.

26. (previously presented) The method according to claim 21, wherein the recited steps are

repeated whenever a new device is connected to the network.

27. (previously presented) The method according to claim 21, wherein the recited steps are repeated whenever any one of said other devices is replaced by a new device.

28-30. (canceled)

31. (currently amended) The method according to claim 21, wherein ~~determination of connections between the first node and the other nodes~~ determining which of the number of connections are still occupied and connected to other nodes and other devices is performed with MAC addresses.

32. (currently amended) The method according to claim 21, wherein the step of ~~establishing a relationship~~ identifying the order of devices to establish a relationship includes determining IP addresses of the other devices.

33. (previously presented) The method according to claim 21, wherein the method is executed by a computer program product.

34 - 37. (canceled)

38. (previously presented) The method according to claim 21, applied to an automation system containing controls, operator units, drives and actuators as the devices.

39. (previously presented) The method according to claim 21, wherein the network is an Ethernet containing personal computers or peripherals as the devices.

40. (previously presented) The method according to claim 21, applied to a network installed in a rail transport system containing traction vehicles and cars as the devices.

41. (currently amended) In a reconfigurable network comprising a plurality of devices, a method for identifying an order of devices in the network thereby enabling determination of relative spatial arrangements among the devices, wherein the network contains a number of nodes interconnected in a sequence, and wherein each of the nodes has a number of connections for interconnecting the nodes and the devices, the method comprising:

configuring the network according to a first hierarchical arrangement of the connections which establishes relationships among the nodes determinative of the relative spatial arrangements among the devices by:

identifying, by each device in the network in a distributed manner, an order of devices in the network to establish a relationship based on predefined hierarchies of connections for each node, comprising, correspondingly for each device in the network:

(i) identifying a corresponding device's associated node;

(ii) determining the order of devices by ascertaining, for the corresponding device's associated node, a number of connections and a predefined hierarchy for the connections, which of the number of connections is connected to the corresponding device and a hierarchy for that connection, and which of the number of connections are still occupied and connected to other nodes and other devices and the hierarchies for those connections; and

(iii) storing the order of devices in the corresponding device;

such that after identifying the order of devices correspondingly for each device in the network in accordance with (i) – (iii), each device in the network has distributively stored therein the order of devices, enabling each device to ascertain direct and indirect relationships between the devices determinative of the relative spatial arrangements among the devices

~~;~~

~~a first of the devices performing a series of determinations including:~~

~~determining a first of the nodes to which it is assigned,~~

~~determining other devices upstream or downstream from the first device,~~

~~determining the number of connections of the first node, the first hierarchical~~

~~arrangement of the connections and nodes, and the connection with which the device is~~

~~connected to the first node, and~~

~~determining for the first node other connections which are connected to other~~

~~nodes or devices,~~

~~acquiring by the first device, in accord with the first hierarchical arrangement,~~ ~~relationships among nodes and connections to which other devices are connected.~~

42. (previously presented) The method of claim 41 wherein the network comprises a plurality of computer devices each positioned on a vehicle or car in a transport arrangement.